Abstract of Disclosure

The Stationary Armature Machine (SAM) ~~is~~ comprised of a stationary armature ~~similar to the Brushless DC motor's stator~~, a stationary commutator affixed to the frame or housing ~~for increased heat abatement~~ and a rotating field and brushes affixed to a common shaft as a means for mechanical commutation of electrical currents based on Lorentz' force law. SAM's unique stationary armature increases current carrying capacity and heat abatement at low voltages and high rotating speeds without increasing overall physical size relative to BLD[[G]]C motors. SAM's armature and field structure are arranged in reverse having the armature in a stationary position with a commutation assembly affixed to the machine's housing while said field structure (and brush assembly) rotate at the center of the machine. By making the armature and commutator assembly stationary, the current carrying conductors can be made much larger without being subjected to extreme centrifugal forces at high rotating velocities. SAM is ideally suited for applications that require high torque and power at high rotational speeds in a small inexpensive package.